第８講　　長文総合問題③

次の英文を読んで，設問に答えなさい。

Man has been remarkably successful in his study of nature. History is said to repeat itself, but, in general, the circumstances of the supposed repetition are not the same as those of the earlier occurrence. As a consequence, the history of man has not been too effective a guide for the future. Nature is kinder. When nature repeats herself, and she does so constantly, the repetitions are exact facsimiles of previous events, and therefore man can anticipate nature's behavior and be prepared for what will take place. We have learned to recognize the patterns of nature and (1)we can speak today of the uniformity of nature and delight in the regularity of her behavior.

The successes of mathematics in the study of inanimate nature have inspired in recent times the mathematical study of human nature. Mathematics has not only contributed to the very practical institutions such as banking, insurance, pension systems, and the like, but it has also supplied some substance, spirit, and methodology to the fields of economics, politics, and sociology. Number, quantitative studies, and precise reasoning have replaced vague, subjective, and ineffectual speculations and have already given evidence of greater values to come.

Perhaps the most profound questions in the realm of philosophy are: What is truth and how does man acquire it? Though we have no final answer to these questions, the contribution of mathematics toward this end is supreme. For two millenniums mathematics was the prime example of truths man had unearthed.

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今日のポイント

＜語彙＞

＜論理構成＞

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Hence all investigations of the problem of acquiring truths necessarily reckoned with mathematics. (2)Not the least significant aspect of the value of mathematics has been the insight it has given us into the ways and powers of the human mind.

(3)Among the values which mathematics offers are its services to the arts. Most people are inclined to believe that the arts are independent of mathematics, but it can be seen that mathematics has fashioned major styles of painting and architecture, and the service mathematics renders to music has not only enabled man to understand it, but has spread its enjoyment to all corners of our globe.

Practical, scientific, philosophical, and artistic problems have caused men to investigate mathematics. But there is one other motive which is as strong as any of these — the search for beauty. Mathematics is an art, and as such affords the pleasures which all the arts afford. This last statement may come as a shock to people who are used to the conventional concept of the true arts and mentally contrast these with mathematics to the disadvantage of the latter.

But the average person has not thought through what the arts really are and what they offer. All that many people actually see in painting, for example, are familiar scenes and perhaps bright colors. These qualities, however, are not the ones which make painting an art. The real values must be learned, and a genuine appreciation of art calls for much study.

[Morris Kline, Mathematics for the Nonmathematician (Dover Books Explaining Science), 1985. Reproduced by permission of Dover Publications, Inc.]

(99 早稲田　理工　改題)

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＜語彙＞

＜論理構成＞

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1. 著者の主張する内容と一致するものを，ａ～ｏの中から５つ選びなさい。

a. Like the study of human history, the study of natural history allows us to accurately predict the future.

b. Natural phenomena are highly predictable and therefore less interesting as objects of study.

c. Mathematics is obviously applicable to the everyday operations of institutions like banking.

d. As a result of mathematics, sciences such as sociology were born.

e. Speculations in social sciences are always valid whenever they are supported by quantitative studies.

f. Man is certain to acquire absolute truth through the study of mathematics.

g. Investigations to acquire truth must be expressed in mathematical terms.

h. The insight we get from mathematics about the human mind is more important than some other aspects of the value of mathematics.

i. Most people fail to comprehend the relationship between the arts and mathematics.

j. Some styles of architecture are actually branches of the study of mathematics.

k. Music cannot be truly enjoyed unless we understand its mathematical foundations.

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l . Mathematics is studied solely for the purpose of solving problems in other academic fields.

m. Some people are attracted to the study of mathematics because they find it beautiful.

n . People who value the arts above mathematics would be surprised that the writer considers mathematics to be an art.

o . Painting is an art because it allows people to appreciate familiar scenes in pleasant colors.

2. 下線(1)～(3)を和訳しなさい。

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大学別対策講座　早稲田大英語　復習テスト　第八回

＊下線部を和訳しなさい。

1. Not the least significant aspect of the value of mathematics has been the insight it has given us into the ways and powers of the human mind.

（　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　）

2. Among the values which mathematics offers are its services to the arts.

（　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　）

＊空欄に，適切な日本語，英語を記述しなさい。

3	reckon with	
4	unearth	
5		結果，重要性
6		洞察力
7	remarkably	
8	conventional	
9		本物の
10		貢献する
11	inanimate	
12	institution	
13		評価・鑑賞
14	quantitative	
15	profound	
16		最高の・至高の
17		均一性
18	the supposed 名詞	
19	anticipate	
20		～しがちである
21	realm	
22	render	
23	inspire	
24	speculation	

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早稲田大英語　第８講　解答

<解答>

１. c，h，i，m，n

２. 全訳の下線部を参照

<全訳>

人間は自然を研究することに，かなり成功している。歴史は繰り返す，と言われるが，一般的に，繰り返すと思われている状況は前に起きたことと同じではない。結果として，人間の歴史はあまり有効な未来への指針とはなっていない。自然のほうがより親切である。自然が繰り返す時，実際，自然は絶えず繰り返すが，その繰り返しは以前に起きたこととまったく同じであり，それゆえ人間は自然の振る舞いを予期し，起こるであろうことに備えることができる。われわれは自然の傾向が認識できるようになってきたし，(1)今日では自然には単一性があると言えるし，その振る舞いの規則性を楽しむことができる。

生物を除いた自然界の研究で数学が成功してきたことは，近年人間界の数学的研究を活気づけてきた。数学は銀行，保険，年金制度などの実用的な制度に貢献してきただけでなく，経済学，政治学，社会学の分野にある程度の実体，精神そして方法論の供給もしている。数値，計量的な研究，厳密な論証は，あいまいで，主観的で，効果の上がらない推測に取って代わり，今後さらに大きな価値を持つことの証拠をすでに示している。

おそらく哲学の分野で最も難解な問題は「真理とは何か。そして人間はどのようにそれを獲得するのか」というものだろう。われわれはこれらの問題に対する最終的な解答を得てはいないが，この目的に対する数学の貢献度は絶大である。2千年の間，数学は人間が発見した真理の最高の実例だった。それゆえ真理の獲得という問題にかかわるすべての研究が必然的に数学を考慮に入れたのだ。(2)数学の持つ価値の特に重要な面とは，数学がわれわれに与えてくれた人間の精神の働きや力に対する洞察力である。

(3)数学が与えてくれる価値の中には芸術に対する貢献がある。ほとんどの人びとは芸術は数学とは無関係であると考える傾向にあるが，数学が絵画や建築の主要な様式に影響を与えてきたとも考えられ，数学が音楽にもたらした貢献のおかげで人間は音楽を理解できるようになっただけでなく，世界のすみずみまでその（音楽の）楽しみが広がっていったのである。

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実用的，科学的，哲学的そして芸術的な問題が原因で，人間は数学の研究をしてきた。しかしこれらのどれにも劣らぬほど強い動機がもう１つある。――それは美の探求である。数学は芸術であり，まさに芸術として，ほかのあらゆる芸術が与えてくれるような喜びを与えてくれる。この最後の発言は，真の芸術というものの従来の概念に慣れていて，心の中で芸術と数学を比較して後者（数学）を下に見る人たちには衝撃的に思えるかもしれない。

しかし，ふつうの人は芸術とは実際には何かとか，芸術が何を与えてくれるかということを徹底的に考えたことはない。例えば，多くの人が実際に絵画の中に見るものは見慣れた場面やおそらく鮮やかな色彩ぐらいだろう。しかしながら，こうした特質が絵画を１つの芸術にしているものではない。その本当の価値は学ばなければならないし，真の芸術鑑賞にはかなりの研究が必要なのだ。

第８講　重要語彙リスト

1	remarkably	著しく	18	pension	年金
2	in general	一般的に	19	supply	～を供給する
3	circumstance	状況	20	substance	物質
4	supposed	想定上の	21	methodology	方法論
5	repetition	繰り返し	22	quantitative	量の
6	occurrence	出来事	23	precise	正確な
7	consequence	結果	24	vague	あいまいな
8	facsimile	模写・複製	25	subjective	主観的な
9	anticipate	～を予期する	26	speculation	推測
10	uniformity	単一性	27	profound	深遠な
11	regularity	規則性	28	realm	領域
12	inanimate	生命のない	29	end	目的
13	inspire	～を促す	30	supreme	最高の
14	contribute to	～に貢献する	31	millennium	1000 年
15	practical	実用的な	32	unearth	～を発見する
16	institution	制度	33	hence	それゆえ
17	insurance	保険	34	investigation	研究

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35	reckon with	～を考慮に入れる	43	as such	そのようなものとして
36	aspect	側面・観点	44	afford	～を与える
37	insight	洞察力	45	come as	～となる
38	service	貢献	46	conventional	慣習的な
39	be inclined to do	～しがちである	47	the latter	後者
40	fashion	～を作る	48	genuine	本物の
41	architecture	建築	49	appreciation	鑑賞
42	render A to B	A を B に与える			

第 8 講　音読用白文　①　②　③　④　⑤　⑥　⑦　⑧　⑨　⑩

Man has been remarkably successful / in his study of nature. History is said to repeat itself, / but, in general, / the circumstances of the supposed repetition are not the same / as those of the earlier occurrence. As a consequence, / the history of man has not been too effective a guide for the future. Nature is kinder. When nature repeats herself, and she does so constantly, / the repetitions are exact facsimiles of previous events, / and therefore man can anticipate nature's behavior / and be prepared for what will take place. We have learned to recognize the patterns of nature / and we can speak today of the uniformity of nature / and delight in the regularity of her behavior.

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Perhaps / the most profound questions / in the realm of philosophy are:

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What is truth and how does man acquire it? Though we have no final answer to these questions, / the contribution of mathematics toward this end is supreme. For two millenniums / mathematics was the prime example of truths / man had unearthed. Hence / all investigations of the problem of acquiring truths / necessarily reckoned with mathematics. Not the least significant aspect of the value of mathematics / has been the insight / it has given us into the ways and powers of the human mind.

Among the values / which mathematics offers / are its services to the arts. Most people are inclined to believe / that the arts are independent of mathematics, / but it can be seen / that mathematics has fashioned major styles of painting and architecture, / and the service / mathematics renders to music / has not only enabled man to understand it, / but has spread its enjoyment to all corners of our globe.

Practical, scientific, philosophical, and artistic problems / have caused men to investigate mathematics. But there is one other motive / which is as strong as any of these — the search for beauty. Mathematics is an art, / and as such affords the pleasures / which all the arts afford. This last statement may come as a shock to people / who are used to the conventional concept of the true arts / and mentally contrast these with mathematics to the disadvantage of the latter.

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